

```

Query Match      100.0%; Score 3369; DB 9; Length 652;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 65; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 MGELPFLSPGARGPHINRGLSLSEOGSVTGEARHSLGVLHVSYSVSNRVGPPWNKIS 60
      |||||
Db 1 MGELPFLSPGARGPHINRGLSLSEOGSVTGEARHSLGVLHVSYSVSNRVGPPWNKIS 60
      |||||
Qy 61 CQQRWDRIILKDVSLYTESQIKCILOSGSGSKTLLDAISGRURRTGTLEGEVFVNGCE 120

```

Db 61 CQKWDQILKDVLSYIESQIMCIIIGSSGKTTLLDAISGRRTGTLEGEVFNCGE 120
Qy 121 LRQDFQDCFSYVLOSDFVLSSTVRETLRYTAMALCRSSADFYNNKVEAVMTLSLH 180
Db 121 LRQDFQDCFSYVLOSDFVLSSTVRETLRYTAMALCRSSADFYNNKVEAVMTLSLH 180
Qy 181 VADQMIGSYNFGGSSGERRRVSIAAQLQDPKVMMLDEPTTGLDCTANQIVLLAELA 240
Db 181 VADQMIGSYNFGGSSGERRRVSIAAQLQDPKVMMLDEPTTGLDCTANQIVLLAELA 240
Qy 241 RRDRIVITTHQPRSELFQHFHDKIAITYGELVFCGTPPEMLGFFNNCGYPCPEHSNPF 300
Db 241 RRDRIVITTHQPRSELFQHFHDKIAITYGELVFCGTPPEMLGFFNNCGYPCPEHSNPF 300
Qy 301 FYMDLTSDTQSREREIETTKRVQMLECAFKESDIYHKILENIERARYLKTLPMPVFKTK 360
Db 301 FYMDLTSDTQSREREIETTKRVQMLECAFKESDIYHKILENIERARYLKTLPMPVFKTK 360
Qy 361 DPPGMFGKGLVLLRRVTNLRNKNQAVIMRLVQNLINGLFLIFYLLRVQNNILKGAVQDR 420
Db 361 DPPGMFGKGLVLLRRVTNLRNKNQAVIMRLVQNLINGLFLIFYLLRVQNNILKGAVQDR 420
Qy 421 VGLLYQLVGATPYTGMLNAVNLFPMLRAVSDQSDGLYHKQWMLLAYVHLVLPFSVIAT 480
Db 421 VGLLYQLVGATPYTGMLNAVNLFPMLRAVSDQSDGLYHKQWMLLAYVHLVLPFSVIAT 480
Qy 481 VIFSSVCVWTGLYPEVARFGYFSAALLAPHLIGEFLLTVLLGIVQNPVINSIVALLSI 540
Db 481 VIFSSVCVWTGLYPEVARFGYFSAALLAPHLIGEFLLTVLLGIVQNPVINSIVALLSI 540
Qy 541 SGLLIGSGFIRNIQEMPIKLGYFTQKYCCCEILVNVNBYGLNFTCGGNTSMLNHPM 600
Db 541 SGLLIGSGFIRNIQEMPIKLGYFTQKYCCCEILVNVNBYGLNFTCGGNTSMLNHPM 600
Qy 601 CAITQGVQFIKTCGATSRFTANFLIYGFIPALVILGIVIFKRDYLSR 652
Db 601 CAITQGVQFIKTCGATSRFTANFLIYGFIPALVILGIVIFKRDYLSR 652

RESULT 2
US-09-989-981A-2
; Sequence 2, Application US/09989981A
; Publication No. US20030049730A1
; GENERAL INFORMATION:
; APPLICANT: Hobbs, Helen H.
; APPLICANT: Shan, Bei
; APPLICANT: Barnes, Robert
; APPLICANT: Tian, Hui
; APPLICANT: Tularik Inc.
; APPLICANT: Board of Regents, The University of Texas System
; TITLE OF INVENTION: ABCG5 and ABCG8: Compositions and Methods of Use
; FILE REFERENCE: 018781-007320US
; CURRENT APPLICATION NUMBER: US/09/989,981A
; CURRENT FILING DATE: 2002-07-23
; PRIOR APPLICATION NUMBER: US 60/252,235
; PRIOR FILING DATE: 2000-11-20
; PRIOR APPLICATION NUMBER: US 60/253,645
; PRIOR FILING DATE: 2000-11-26
; NUMBER OF SEQ ID NOS: 13
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 2
; LENGTH: 652
; TYPE: PRT
; ORGANISM: Mus musculus
; FEATURE:
; OTHER INFORMATION: mouse ABCG5 (mABCG5)
US-09-989-981A-2
Query Match 100.0%; Score 3369; DB 10; Length 652;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 652; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 MGELPFLSPGARGPHINRGSLSSLEQSVTGTEARHSLGVLHVSVSVNRVGPWNMNIKS 60
Db 1 MGELPFLSPGARGPHINRGSLSSLEQSVTGTEARHSLGVLHVSVSVNRVGPWNMNIKS 60
Qy 61 CQKWDQILKDVLSYIESQIMCIIIGSSGKTTLLDAISGRRTGTLEGEVFNCGE 120
Db 61 CQKWDQILKDVLSYIESQIMCIIIGSSGKTTLLDAISGRRTGTLEGEVFNCGE 120
Qy 121 LRQDFQDCFSYVLOSDFVLSSTVRETLRYTAMALCRSSADFYNNKVEAVMTLSLH 180
Db 121 LRQDFQDCFSYVLOSDFVLSSTVRETLRYTAMALCRSSADFYNNKVEAVMTLSLH 180
Qy 181 VADQMIGSYNFGGSSGERRRVSIAAQLQDPKVMMLDEPTTGLDCTANQIVLLAELA 240
Db 181 VADQMIGSYNFGGSSGERRRVSIAAQLQDPKVMMLDEPTTGLDCTANQIVLLAELA 240
Qy 241 RRDRIVITTHQPRSELFQHFHDKIAITYGELVFCGTPPEMLGFFNNCGYPCPEHSNPF 300
Db 241 RRDRIVITTHQPRSELFQHFHDKIAITYGELVFCGTPPEMLGFFNNCGYPCPEHSNPF 300
Qy 301 FYMDLTSDTQSREREIETTKRVQMLECAFKESDIYHKILENIERARYLKTLPMPVFKTK 360
Db 301 FYMDLTSDTQSREREIETTKRVQMLECAFKESDIYHKILENIERARYLKTLPMPVFKTK 360
Qy 361 DPPGMFGKGLVLLRRVTNLRNKNQAVIMRLVQNLINGLFLIFYLLRVQNNILKGAVQDR 420
Db 361 DPPGMFGKGLVLLRRVTNLRNKNQAVIMRLVQNLINGLFLIFYLLRVQNNILKGAVQDR 420
Qy 421 VGLLYQLVGATPYTGMLNAVNLFPMLRAVSDQSDGLYHKQWMLLAYVHLVLPFSVIAT 480
Db 421 VGLLYQLVGATPYTGMLNAVNLFPMLRAVSDQSDGLYHKQWMLLAYVHLVLPFSVIAT 480
Qy 481 VIFSSVCVWTGLYPEVARFGYFSAALLAPHLIGEFLLTVLLGIVQNPVINSIVALLSI 540
Db 481 VIFSSVCVWTGLYPEVARFGYFSAALLAPHLIGEFLLTVLLGIVQNPVINSIVALLSI 540
Qy 541 SGLLIGSGFIRNIQEMPIKLGYFTQKYCCCEILVNVNBYGLNFTCGGNTSMLNHPM 600
Db 541 SGLLIGSGFIRNIQEMPIKLGYFTQKYCCCEILVNVNBYGLNFTCGGNTSMLNHPM 600
Qy 601 CAITQGVQFIKTCGATSRFTANFLIYGFIPALVILGIVIFKRDYLSR 652
Db 601 CAITQGVQFIKTCGATSRFTANFLIYGFIPALVILGIVIFKRDYLSR 652

RESULT 3
US-09-837-992-3
; Sequence 3, Application US/09837992
; Patent No. US20020081687A1
; GENERAL INFORMATION:
; APPLICANT: Tian, Hui
; APPLICANT: Schultz, Joshua
; APPLICANT: Shan, Bei
; APPLICANT: Tularik Inc.
; TITLE OF INVENTION: Sickle cell anemia Susceptibility Gene (SSG): Compositions
; FILE REFERENCE: 018781-006020US
; CURRENT APPLICATION NUMBER: US/09/837,992
; CURRENT FILING DATE: 2001-04-18
; PRIOR APPLICATION NUMBER: US 60/198,465
; PRIOR FILING DATE: 2000-04-18
; PRIOR APPLICATION NUMBER: US 60/204,234
; PRIOR FILING DATE: 2000-05-15
; NUMBER OF SEQ ID NOS: 45
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 3
; LENGTH: 651
; TYPE: PRT
; ORGANISM: Homo sapiens
; FEATURE:
; OTHER INFORMATION: human sickle cell anemia susceptibility gene (SSG)
; OTHER INFORMATION: amino acid sequence
US-09-837-992-3

```

; TYPE: PRT
; ORGANISM: Homo sapiens
; FEATURE:
; OTHER INFORMATION: human ABCG5 (hABCG5)
US-09-989-981A-6

Query Match      81.5%; Score 2744.5; DB 9; Length 651;
Best Local Similarity 80.2%; Pred. No. 1.8e-258;
Matches 523; Conservative 64; Mismatches 64; Indels 1; Gaps 1;

QY 1 MGELPFLSPGARGPHINRGSLSSLEQSGSVTGTBARHSLGLVHVSYSVSNRVGPWNNIKS 60
DB 1 MGDLSLTPGSGMGLQVNRGSSQSSLEGAPATAPEP-HSLGILHASYSVSHRVRPMDITS 59
QY 61 CQKWDRQILKDVSLYIESGQIMCILEQSGSVTGTBARHSLGLVHVSYSVSNRVGPWNNIKS 120
DB 60 CQKWDRQILKDVSLYIESGQIMCILEQSGSVTGTBARHSLGLVHVSYSVSHRVRPMDITS 119
QY 121 LRRDQFQDCFSYVLOSDFVLSLTVRETLRYTAMALCRSSADFYNNKVEAVMTLSLH 180
DB 120 LRRDQFQDCFSYVLOSDFVLSLTVRETLRYTAMALCRSSADFYNNKVEAVMTLSLH 179
QY 181 VADQMIGSYNFGGISTGERRRVSIAAQLQDPKVMLEDEPTTGLDCTANQIVLLAELA 240
DB 180 VADRLIGNYSLGGISTGERRRVSIAAQLQDPKVMLEDEPTTGLDCTANQIVLLAELA 239
QY 241 RDRIVIVITHOPRSELFOHFKIAILTYGELVFCGTPEEMLGFNNCGYPCPEHSNPF 300
DB 240 RDRIVIVITHOPRSELFOHFKIAILTYGELVFCGTPEEMLGFNNCGYPCPEHSNPF 299
QY 301 FMYDLTSVDTQSKEREIETSKRVQIESAYKSAICHKTLKNIERMKHLKTLPMVPFKTK 360
DB 300 FMYDLTSVDTQSKEREIETSKRVQIESAYKSAICHKTLKNIERMKHLKTLPMVPFKTK 359
QY 361 DPPGMFGKLVLLRRVTRNLNRKQAVIMRLVQNLIMGLFIPLFYLLRVONNTLKGAQDR 420
DB 360 DPPGMFGKLVLLRRVTRNLNRKQAVIMRLVQNLIMGLFIPLFYLLRVONNTLKGAQDR 419
QY 421 VGLLYQLVGCATPYTGMLNANLFPMLRAVSDQESQDGLYHKQWMLLAYLHVLFPFSVIAT 480
DB 420 VGLLYQLVGCATPYTGMLNANLFPMLRAVSDQESQDGLYHKQWMLLAYLHVLFPFSVIAT 479
QY 481 VFSSVCYWTGLYHPEVARFGYFSAALLAPHILIGFELTLVLLGIVQNPVNSVALLSI 540
DB 480 MIFSSVCYWTGLYHPEVARFGYFSAALLAPHILIGFELTLVLLGIVQNPVNSVALLSI 539
QY 541 SGLLIGSGFIRNIQEMPIPLKILGYFTFQKYCCCELLVWNEFYGLNFTCGGSNTSMLNHPM 600
DB 540 AGVLVSGFIRNIQEMPIPLKILGYFTFQKYCCCELLVWNEFYGLNFTCGGSNTSMLNHPM 599
QY 601 CAITQGVQFIKTCPCGATSRFTANFLILYGFIPALVILGIVIPKVRDYLIISR 652
DB 600 CAITQGVQFIKTCPCGATSRFTANFLILYGFIPALVILGIVIPKVRDYLIISR 651

```

```

RESULT 4
US-09-989-981A-6
; Sequence 6, Application US/099898981A
; Publication No. US20030049730A1
; GENERAL INFORMATION:
; APPLICANT: Hobbs, Helen H.
; APPLICANT: Shan, Bei
; APPLICANT: Barnes, Robert
; APPLICANT: Tian, Hui
; APPLICANT: Tularik Inc.
; APPLICANT: Board of Regents, The University of Texas System
; TITLE OF INVENTION: ABCG5 and ABCG8: Compositions and Methods of Use
; FILE REFERENCE: 018781-007320US
; CURRENT APPLICATION NUMBER: US/09/989,981A
; CURRENT FILING DATE: 2002-07-23
; PRIOR APPLICATION NUMBER: US 60/252,235
; PRIOR FILING DATE: 2000-11-20
; PRIOR APPLICATION NUMBER: US 60/253,645
; PRIOR FILING DATE: 2000-11-28
; NUMBER OF SEQ ID NOS: 13
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 6
; LENGTH: 651

```

```

; TYPE: PRT
; ORGANISM: Homo sapiens
; FEATURE:
; OTHER INFORMATION: human ABCG5 (hABCG5)
US-09-989-981A-6

Query Match      81.5%; Score 2744.5; DB 10; Length 651;
Best Local Similarity 80.2%; Pred. No. 1.8e-258;
Matches 523; Conservative 64; Mismatches 64; Indels 1; Gaps 1;

QY 1 MGELPFLSPGARGPHINRGSLSSLEQSGSVTGTBARHSLGLVHVSYSVSNRVGPWNNIKS 60
DB 1 MGDLSLTPGSGMGLQVNRGSSQSSLEGAPATAPEP-HSLGILHASYSVSHRVRPMDITS 59
QY 61 CQKWDRQILKDVSLYIESGQIMCILEQSGSVTGTBARHSLGLVHVSYSVSNRVGPWNNIKS 120
DB 60 CQKWDRQILKDVSLYIESGQIMCILEQSGSVTGTBARHSLGLVHVSYSVSHRVRPMDITS 119
QY 121 LRRDQFQDCFSYVLOSDFVLSLTVRETLRYTAMALCRSSADFYNNKVEAVMTLSLH 180
DB 120 LRRDQFQDCFSYVLOSDFVLSLTVRETLRYTAMALCRSSADFYNNKVEAVMTLSLH 179
QY 181 VADQMIGSYNFGGISTGERRRVSIAAQLQDPKVMLEDEPTTGLDCTANQIVLLAELA 240
DB 180 VADRLIGNYSLGGISTGERRRVSIAAQLQDPKVMLEDEPTTGLDCTANQIVLLAELA 239
QY 241 RDRIVIVITHOPRSELFOHFKIAILTYGELVFCGTPEEMLGFNNCGYPCPEHSNPF 300
DB 240 RDRIVIVITHOPRSELFOHFKIAILTYGELVFCGTPEEMLGFNNCGYPCPEHSNPF 299
QY 301 FMYDLTSVDTQSKEREIETSKRVQIESAYKSAICHKTLKNIERMKHLKTLPMVPFKTK 360
DB 300 FMYDLTSVDTQSKEREIETSKRVQIESAYKSAICHKTLKNIERMKHLKTLPMVPFKTK 359
QY 361 DPPGMFGKLVLLRRVTRNLNRKQAVIMRLVQNLIMGLFIPLFYLLRVONNTLKGAQDR 420
DB 360 DPPGMFGKLVLLRRVTRNLNRKQAVIMRLVQNLIMGLFIPLFYLLRVONNTLKGAQDR 419
QY 421 VGLLYQLVGCATPYTGMLNANLFPMLRAVSDQESQDGLYHKQWMLLAYLHVLFPFSVIAT 480
DB 420 VGLLYQLVGCATPYTGMLNANLFPMLRAVSDQESQDGLYHKQWMLLAYLHVLFPFSVIAT 479
QY 481 VFSSVCYWTGLYHPEVARFGYFSAALLAPHILIGFELTLVLLGIVQNPVNSVALLSI 540
DB 480 MIFSSVCYWTGLYHPEVARFGYFSAALLAPHILIGFELTLVLLGIVQNPVNSVALLSI 539
QY 541 SGLLIGSGFIRNIQEMPIPLKILGYFTFQKYCCCELLVWNEFYGLNFTCGGSNTSMLNHPM 600
DB 540 AGVLVSGFIRNIQEMPIPLKILGYFTFQKYCCCELLVWNEFYGLNFTCGGSNTSMLNHPM 599
QY 601 CAITQGVQFIKTCPCGATSRFTANFLILYGFIPALVILGIVIPKVRDYLIISR 652
DB 600 CAITQGVQFIKTCPCGATSRFTANFLILYGFIPALVILGIVIPKVRDYLIISR 651

```

```

RESULT 5
US-10-090-455-6
; Sequence 6, Application US/10090455
; Publication No. US20030027259A1
; GENERAL INFORMATION:
; APPLICANT: Chen, Hongyun
; APPLICANT: Le Bihan, Stephane
; TITLE OF INVENTION: NOVEL ABCG4 TRANSPORTER AND USES THEREOF
; FILE REFERENCE: 100103.406
; CURRENT APPLICATION NUMBER: US/10/090,455
; CURRENT FILING DATE: 2002-03-01
; NUMBER OF SEQ ID NOS: 17
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 6
; LENGTH: 651
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-090-455-6

```

Query Match 81.5%; Score 2744.5; DB 14; Length 651;
 Best Local Similarity 80.2%; Pred. No. 1.8e-258;
 Matches 523; Conservative 64; Mismatches 64; Indels 1; Gaps 1;

QY 1 MGELPFLSPGARGPHINRGSLSLGSGSVTGTAEARHSLGLVHVSYSNRVGPWNKIS 60
 DB 1 MGDLSUTPGSGMLQNRGSSQSLGAPATAPEP-HSLGILHASVSVSRVPMWDITS 59

QY 61 CQKWDRLKLDVSLYIESGQIMCILGSSGSGTKTLLDAISGRLLRTGTLEGEVFVNGCE 120
 DB 60 CQKWDRLKLDVSLYIESGQIMCILGSSGSGTKTLLDAMSGRLGAGTFLGEVYVNGRA 119

QY 121 LRRQFQDCRSYVLOSDFVLSLTVRETLAYTAMALCRSSADFYNNKKEAVNMTLSLH 180
 DB 120 LRRQFQDCRSYVLOSDFVLSLTVRETLAYTAMALCRSSADFYNNKKEAVNMTLSLH 179

QY 181 VADQMIGSYNFGGSSGERRRVSIAAQLLODPKVMMLDEPTTGLDCMTANQIVLLAELA 240
 DB 180 VADRLIGNYSILGSGTERRRVSIAAQLLODPKVMMLDEPTTGLDCMTANQIVLLAELA 239

QY 241 RRRDRIVITHOPRSELFQHPDKIAITYGELVFCGTPPEMLGFFNNCGYPCPEHSNPF 300
 DB 240 RRRDRIVITHOPRSELFQHPDKIAITYGELVFCGTPPEMLGFFNNCGYPCPEHSNPF 299

QY 301 FYMDLTSVDTOSRRETIETKRVQMLECAPKESDIYHILENIERARYLXTLPMVPFKTK 360
 DB 300 FYMDLTSVDTOSRRETIETKRVQMLECAPKESDIYHILENIERARYLXTLPMVPFKTK 359

QY 361 DPPQMGKGLVLLRRVTRNLMNRQAVIMRLVQNLINGLFLIFVLLRVQNTLKGAVQDR 420
 DB 360 DSPGVFSGKGLVLLRRVTRNLMNRQAVIMRLVQNLINGLFLIFVLLRVQNTLKGAVQDR 419

QY 421 VGLLYQVLGATPYTGMLNANVLPMLRAVSDQESQDGLYHKWQMLLAYVHLVLPFSVIAT 480
 DB 420 VGLLYQVLGATPYTGMLNANVLPMLRAVSDQESQDGLYHKWQMLLAYVHLVLPFSVIAT 479

QY 481 VIFSSVCYMTLGLYPEVARPGYFSAALLAPHLIGEFLLTVLLGTVQNPVINSIVALLSI 540
 DB 480 MIFSSVCYMTLGLYPEVARPGYFSAALLAPHLIGEFLLTVLLGTVQNPVINSIVALLSI 539

QY 541 SGLLIGSGFIRNIOEMPIKILGVETFOKCCILVNVNFGNFTCGGNTSMLNHPM 600
 DB 540 AGVLVSGFLNRNIOEMPIKILGVETFOKCCILVNVNFGNFTCGGNTSMLNHPM 599

QY 601 CAITQGVQFIKTCPGATSRFTANFLILYGPALVILGIVIPKVRDYLSR 652
 DB 600 CAITQGVQFIKTCPGATSRFTANFLILYGPALVILGIVIPKVRDYLSR 651

RESULT 6
 US-10-104-047-2795
 ; Sequence 2795, Application US/10104047
 ; Publication No. US20030236392A1
 ; GENERAL INFORMATION:
 ; TITLE OF INVENTION: No. US20030236392A1e1 full length cDNA
 ; FILE REFERENCE: H1-A0105
 ; CURRENT APPLICATION NUMBER: US/10/104,047
 ; CURRENT FILING DATE: 2002-03-25
 ; PRIOR APPLICATION NUMBER:
 ; PRIOR FILING DATE:
 ; NUMBER OF SEQ ID NOS: 4096
 ; SOFTWARE: PatentIn Ver. 2.1
 ; SEQ ID NO 2795
 ; LENGTH: 256
 ; TYPE: PRT
 ; ORGANISM: Homo sapiens
 US-10-104-047-2795

Query Match 34.9%; Score 1177; DB 15; Length 256;
 Best Local Similarity 85.5%; Pred. No. 4.6e-106;
 Matches 219; Conservative 23; Mismatches 14; Indels 0; Gaps 0;

QY 397 MGELPFLVLLRVQNTLKGAVQDRVGLLYQLVGTATPYTGMLNANVLPMLRAVSDQESQD 456
 DB 1 MGELPFLVLLRVQNTLKGAVQDRVGLLYQLVGTATPYTGMLNANVLPMLRAVSDQESQD 60

QY 457 GLYHKWQMLLAYVHLVLPFSVIATVIFSSVCYMTLGLYPEVARPGYFSAALLAPHLIGEF 516
 DB 61 GLYHKWQMLLAYVHLVLPFSVIATVIFSSVCYMTLGLYPEVARPGYFSAALLAPHLIGEF 120

QY 517 LTVLLGTVQNPVINSIVALLSGLLIGSGFIRNIOEMPIKILGVETFOKCCILV 576
 DB 121 LTVLLGTVQNPVINSIVALLSGLLIGSGFIRNIOEMPIKILGVETFOKCCILV 180

QY 577 VVNEFYGLNFTCGGNTSMLNHPMCAITQGVQFIKTCPGATSRFTANFLILYGFIPALV 636
 DB 181 VVNEFYGLNFTCGGNTSMLNHPMCAITQGVQFIKTCPGATSRFTANFLILYGFIPALV 240

QY 637 ILGIVIFKVRDYLSR 652
 DB 241 ILGIVIFKVRDYLSR 256

RESULT 7
 US-09-989-981A-4
 ; Sequence 4, Application US/09989981A
 ; Publication No. US20030049730A1
 ; GENERAL INFORMATION:
 ; APPLICANT: Hobbs, Helen H.
 ; APPLICANT: Shan, Bei
 ; APPLICANT: Barnes, Robert
 ; APPLICANT: Tian, Hui
 ; APPLICANT: Tularik Inc.
 ; TITLE OF INVENTION: ABCG8 and ABCG8: Compositions and Methods of Use
 ; FILE REFERENCE: 018781-007320US
 ; CURRENT APPLICATION NUMBER: US/09/989,981A
 ; CURRENT FILING DATE: 2002-07-23
 ; PRIOR APPLICATION NUMBER: US 60/252,235
 ; PRIOR FILING DATE: 2000-11-20
 ; PRIOR APPLICATION NUMBER: US 60/253,645
 ; PRIOR FILING DATE: 2000-11-28
 ; NUMBER OF SEQ ID NOS: 13
 ; SOFTWARE: PatentIn Ver. 2.1
 ; SEQ ID NO 4
 ; LENGTH: 672
 ; TYPE: PRT
 ; ORGANISM: Mus musculus
 ; FEATURE:
 ; OTHER INFORMATION: mouse ABCG8 (mABCG8)
 US-09-989-981A-4

Query Match 20.8%; Score 701.5; DB 10; Length 672;
 Best Local Similarity 29.1%; Pred. No. 5.5e-59;
 Matches 194; Conservative 131; Mismatches 245; Indels 97; Gaps 19;

QY 27 QGSVTGTAEARHSLGLVHVSYS-----VSNRVGPW-----WNKIS 60
 DB 24 QDSLFSSESDNS--LYFTYSGQNTLEVRDLYQVDIASQV-PWFEQLAQKIPWRS 79

QY 61 CQKWDRLKLDVSLYIESGQIMCILGSSGSGTKTLLDAISGRLLRTGTLEGEVFVNGCE 120
 DB 80 SQDSCELGI-RNLSFKVRSGQMLAIGSSGCGRSLLDVITGRGHGKMSQIWINQOP 138

QY 121 LRRQFQDCRSYVLOSDFVLSLTVRETLAYTAMALCRS-SADFYNKKEAVNMTLSLS 179
 DB 139 STPOLVRKCVAVRHQDQLLPNLTVRETLAFIAQMLPRTFSQAQRDXVEDVIAELRLR 198

QY 180 HVADQMIGSYNFGGSSGERRRVSIAAQLLODPKVMMLDEPTTGLDCMTANQIVLLAELA 239
 DB 199 QCANTRVGNVTYVRGSGGERRRVSIGVQLLWPNFGLILDEPTSGLDSTFAHNLVTTLSRL 258

QY 240 ARDRIVITHOPRSELFQHPDKIAITYGELVFCGTPPEMLGFFNNCGYPCPEHSNPF 299
 DB 241 ARDRIVITHOPRSELFQHPDKIAITYGELVFCGTPPEMLGFFNNCGYPCPEHSNPF 299

Db 259 AKGNRLVLSLHQPASDIFRLFDVLVLTSTGPIYLGAQQMVQYFSTIGHPCPYSNPA 318
 Qy 300 DFYMDLTSVDTQSREREIETRYQVOMLECAFKP-----SDIYHKI-LENIERARYLTKLP 353
 Db 319 DFYVDTLSIDRSKEREVATVEKAQSLAALFLEKVOQDFDLWKAEAKELNTSHTVSLT 378
 Qy 354 MVPFKTKDP-----PGMEGKLVLLRRVTRNLMENKQAVINRLVQNLIMGLFLIFYL 405
 Db 379 L-----TQDTCGTAVELPGMTEQSTLIRROISNDFRDLPTLLHGSACMLSIIGP-- 432
 Qy 406 LRQVNTLKGAVQDRVGLLYQVATPYTGMLNANLFPMLRAVSDOESODGLYHKWQML 465
 Db 433 LVYHGAKQLSFMDTAALLFMIGALIPNVILDVVSKCHSRLMYELEDGLYTAGPYF 492
 Qy 466 LAYVLHVLFPVSIVATVIESSVCYWTGLGYPEVARPGYFSAALLAPHLIGFEL-----TL 519
 Db 493 FAKILGELPEHCAYVVIYAMPYITNLRPVPELF-----LL-HELLVWLWVFCRTM 544
 Qy 520 VLLGIVQNPNT-VNSIVALLSIGLLIGSGFIRNIQEMPIPLKILGYFTFKYCEILVV 578
 Db 545 ALAASAMLPPTHMSSFFCNALYNSFYLTAGFWINLNLNWIVPAMISKLSFLRWCFSLMQ 604
 Qy 579 NEFYGL-----NETCGSNTSMJ-----NHPMCA---ITQGVQFIEKTCPGATSRFT 622
 Db 605 IQFNHGLYTTQIGNFTFSILGDTMISAMDLSNHPLYAIYLVIGISY-----651
 Qy 623 ANFLILY 629
 Db 652 -GPLEFLY 657

RESULT 8
 US-09-961-086-1
 ; Sequence 1, Application US/09961086
 ; Publication No. US20030036645A1
 ; GENERAL INFORMATION:
 ; APPLICANT: UNIVERSITY OF MARYLAND, BALTIMORE
 ; APPLICANT: ROSS, Douglas D.
 ; APPLICANT: DOYLE, L. Austin
 ; APPLICANT: ABRUZZO, Lynne
 ; TITLE OF INVENTION: BREAST CANCER RESISTANCE PROTEIN (BCRP) AND THE DNA
 ; TITLE OF INVENTION: WHICH ENCODES IT
 ; FILE REFERENCE: EP19376-019
 ; CURRENT APPLICATION NUMBER: US/09/961,086
 ; CURRENT FILING DATE: 2001-09-21
 ; PRIOR APPLICATION NUMBER: US 60/073,763
 ; PRIOR FILING DATE: 1998-02-05
 ; PRIOR APPLICATION NUMBER: PCT/US99/02577
 ; PRIOR FILING DATE: 1999-02-05
 ; NUMBER OF SEQ ID NOS: 7
 ; SOFTWARE: PatentIn Ver. 2.1
 ; SEQ ID NO 1
 ; LENGTH: 655
 ; TYPE: PRT
 ; ORGANISM: Homo sapiens
 US-09-961-086-1

Query Match 20.6%; Score 693.5; DB 10; Length 655;
 Best Local Similarity 29.0%; Pred. No. 3.2e-58;
 Matches 181; Conservative 142; Mismatches 246; Indels 55; Gaps 16;
 Qy 25 LEQGSVTGTGEARHS-----LGVLHVSYSVNRVGPWNNIKSCQKQWDRQILKDV 73
 Db 12 VSQGTNGFPATASNDLKAFTEGAVLSFNICRYVKLKS-----FLPCRKPKVEKILSNI 67
 Qy 74 SLVIESGQIMCIIIGSSGSKTLLDAISGLRRTGTILGEVFNVCCELRRQDFQCFSYV 133
 Db 68 NGIMKPG-LNALIGPTGGKSLDVLARKDPG-LSGDVLINGAP-RPANFKCNSGYV 124
 Qy 134 LOSDVFSLSLTVRETLRYTAMALCRSSADF-YNKKVZAVMTLSLHSHVADQIMGSYNFG 192
 Db 125 VQDDVVMGTLTVRENLPQSAALRLATTMTNHEKNERINRVIQELGLDKVADSKVGTQFIR 184

Qy 193 GISSERRVSTAAQLQDPEKVMMLDEPTTGLDCMTANQIVLLLAELARRDRIVVTIHO 252
 Db 185 GVSGERKRTSLGMBLITDPSILFDEPTTGLDSSANAVLLLLKRMKQSGETIIFSIO 244
 Qy 253 PRSELFQHFEDKIAILTYGELVFCGTPEEMLGFFNNCGYPCPEHSNPFDFYMDLTSVDTO- 311
 Db 245 PRYSIFKLFDSLTLASGRLMFHPGAQEGALGYFESAGYHCEAYNNPADFFLDIINGDSTA 304
 Qy 312 -SREREIETRYQVOMLECAFKESDIYHKI-----LENIERARYLTK 351
 Db 305 VALNRE-EDFKATEIIEPSKQDKPLIEKLAETVNSSYFKETKAEHQUSGGEKKKKTIV 363
 Qy 352 LPMVFPKTKDPPGMFGKLGVLRLVTRNLMRNKQAVIMRLVQNLIMGLFLIFYLRLVQNN 411
 Db 364 FREISYTT-----SFCHQLRWVSKRSFKNLLGNPQASIAQLIIVTVLGLVIGAIYFGLKND 419
 Qy 412 TKGAVQDRVGLLYQVATPYTGMLNANLFPMLRAVSDOESODGLYHKWQMLLAYVL- 470
 Db 420 ST-GIGNAGVLFLLTNNQCFSS-VSAVELFVVEKKLFIHEYISGYRVVSFYFLKLLS 476
 Qy 471 HVLPPFSVIATVIFSSVCYWTGLGYPEVARFGYFSAALLAPHLIGBFLTLVLLGIYQNPNI 530
 Db 477 DLLPMTMLPSLIFTCIVFEMGLGPKADAFVMMFTLM--NVAYSASSMALAIAAGQSV 533
 Qy 531 VNSIVALLSIS--GLLIGSGFIRNIQEMPIPLKILGYFTFKYCEILVNVFVYGLNFTC 588
 Db 534 VSVATLLMTICFVFMWIFSGLLVNLTTIASWLSWLYQFSPRYGFTALQHNBEFLQNF-C 592
 Qy 589 GGSNTSMLNHPMCAITQGVQFIEK 612
 Db 593 PGLNATGNPNCAVCTGEBEYLK 616

RESULT 9
 US-10-405-806-13
 ; Sequence 13, Application US/10405806
 ; Publication No. US20030232362A1
 ; GENERAL INFORMATION:
 ; APPLICANT: KONATANI, HIDEYA
 ; APPLICANT: HARA, YOSHIKAZU
 ; APPLICANT: KOTANI, HIDEHITO
 ; APPLICANT: NAKAGAWA, RINAKO
 ; TITLE OF INVENTION: DRUG RESISTANT GENE AND USE THEREOF
 ; FILE REFERENCE: 234985USOCONT
 ; CURRENT APPLICATION NUMBER: US/10/405,806
 ; CURRENT FILING DATE: 2003-04-03
 ; PRIOR APPLICATION NUMBER: PCT/JP01/08112
 ; PRIOR FILING DATE: 2001-09-18
 ; PRIOR APPLICATION NUMBER: JP2000-303441
 ; PRIOR FILING DATE: 2000-10-03
 ; NUMBER OF SEQ ID NOS: 17
 ; SOFTWARE: PatentIn version 3.2
 ; SEQ ID NO 13
 ; LENGTH: 655
 ; TYPE: PRT
 ; ORGANISM: Artificial Sequence
 ; FEATURE:
 ; OTHER INFORMATION: ABCG2 482Tmutant sequence
 US-10-405-806-13

Query Match 20.6%; Score 693.5; DB 15; Length 655;
 Best Local Similarity 29.0%; Pred. No. 3.2e-58;
 Matches 181; Conservative 142; Mismatches 246; Indels 55; Gaps 16;
 Qy 25 LEQGSVTGTGEARHS-----LGVLHVSYSVNRVGPWNNIKSCQKQWDRQILKDV 73
 Db 12 VSQGTNGFPATASNDLKAFTEGAVLSFNICRYVKLKS-----FLPCRKPKVEKILSNI 67
 Qy 74 SLVIESGQIMCIIIGSSGSKTLLDAISGLRRTGTILGEVFNVCCELRRQDFQCFSYV 133
 Db 68 NGIMKPG-LNALIGPTGGKSLDVLARKDPG-LSGDVLINGAP-RPANFKCNSGYV 124
 Qy 134 LOSDVFSLSLTVRETLRYTAMALCRSSADF-YNKKVZAVMTLSLHSHVADQIMGSYNFG 192

```

125 VDDVVGTTVRENLOFSAAALRLATTMTNHEKNERINRVIQELGDKVADSKVGTFQFIR 184
193 GISGERRRVSIAAQLLODPKVMMLDEPTTGLDQMTANQIVLLAEARDRIVIVTIHQ 252
185 GVSGERKRTSIGMELITDPSILFDEPTTGLDSTANAVLLLLKMSKQGRTIIFSIHQ 244
253 PRSELFQHFDAKIALITYGELVFCGTPEMLGFFNNGCYPCPEHNSPPDFYMDLTSVDTO- 311
245 PRYSIFKLFDSLTLLASGRLMFHGPAQALGYFESAGYHCEAYNNPADFFLDIINGDSTA 304
312 -SRREIETKRVQMLECAPKESDIYHKI-----LENIERARYLKT 351
305 VALNRE-EDFKATEIIEPSKQDKLEKLABIYVNSSFYKETAELHQLSGGKKKITV 363
352 LPMVFFTKDPPGKGLVLLRRVTRNLMNKQAVIMLVQNLIMGLFLIFYLLRVQNN 411
364 FKESYTT----SFCHQLRWVSKSFKNLLGNPOASIAQIIVTVVLGLVICALYFGLKND 419
412 TLKGAQDRVGLLYQLVGATPYTGMLNANVLFPMRAVSDQESQDGLYHKWQMLLAYVL- 470
420 ST--GIQNRAGVLFLLTNQCFSS--VSAVELFVVEKKLFIHEYISGYRVSSYFLGKLLS 476
471 HVLPSVIATVIFSSVCYWTILGLYPEVARFGYFSAALLAPHLIGEFTLVLLGIVQNPNI 530
477 DLLPMTLPSIIFTCTIVYFVLMGLKPKADAFVMMFTLM---WVAYSASSMALAIAAGQSV 533
531 VNSIVALLSIS--GLLTGSGFIRNIQEMPIPKILGYFTFKYCCCEILVNVFVGLNFTC 588
534 VSVATLLMTICFVFMWIFSGLLVNLTIASWLSWLYQFSIPRYGFTALQHNEFLGQNF-C 592
589 GGSNTSMNLNHPMCAITQGVQPIEK 612
593 PGLNATGNPCNYATCTGEEYLVK 616

```

```

RESULT 10
US-09-981-353-35
; Sequence 35, Application US/09981353
; Patent No. US20020160382A1
; GENERAL INFORMATION:
; APPLICANT: Jones, David A.
; TITLE OF INVENTION: GENES EXPRESSED IN COLON CANCER
; FILE REFERENCE: PA-0038 US
; CURRENT APPLICATION NUMBER: US/09/981.353
; CURRENT FILING DATE: 2001-10-11
; NUMBER OF SEQ ID NOS: 194
; SOFTWARE: PERL Program
; SEQ ID NO 35
; LENGTH: 655
; TYPE: PRT
; ORGANISM: Homo sapiens
; NAME/KEY: misc feature
; OTHER INFORMATION: Incyte ID No. US20020160382A1 5517972CD1
US-09-981-353-35

```

```

Query Match 20.5%; Score 691.5; DB 9; Length 655;
Best Local Similarity 29.0%; Pred. No. 5e-58;
Matches 181; Conservative 141; Mismatches 247; Indels 55; Gaps 16;

QY 25 LEQGSVTGTEARHS-----LGVLHVSYSVSNRVGPMWNIKSCQKQKWDQILKDV 73
DB 12 VSQNGTNGFPATASNDLKAFTEGAVLSFHNICRYVKLSG---FLPCRKPEVEKILSNI 67
QY 74 SLVIESQIMCILSGSGSKTLLDAISGRLLRTGTLEGEVFNVCGLRRDQFCFSYV 133
DB 68 NIMKPG-LNALGTGGGSKSLDVLARKDPSG-LSGDVINGAP-RPANFKNSGYV 124
QY 134 LQSDVFLASLTRETILRYTAMALCRSADF-YNKKVEAVMTLSLSHVADQIMGSYNG 192
DB 125 VQDDVVGTTVRENLOFSAAALRLATTMTNHEKNERINRVIQELGDKVADSKVGTFQFIR 184

```

```

QY 193 GISGERRRVSIAAQLLODPKVMMLDEPTTGLDQMTANQIVLLAEARDRIVIVTIHQ 252
DB 195 GVSGERKRTSIGMELITDPSILFDEPTTGLDSTANAVLLLLKMSKQGRTIIFSIHQ 244
QY 253 PRSELFQHFDAKIALITYGELVFCGTPEMLGFFNNGCYPCPEHNSPPDFYMDLTSVDTO- 311
DB 245 PRYSIFKLFDSLTLLASGRLMFHGPAQALGYFESAGYHCEAYNNPADFFLDIINGDSTA 304
QY 312 -SRREIETKRVQMLECAPKESDIYHKI-----LENIERARYLKT 351
DB 305 VALNRE-EDFKATEIIEPSKQDKLEKLABIYVNSSFYKETAELHQLSGGKKKITV 363
QY 352 LPMVFFTKDPPGKGLVLLRRVTRNLMNKQAVIMLVQNLIMGLFLIFYLLRVQNN 411
DB 364 FKESYTT----SFCHQLRWVSKSFKNLLGNPOASIAQIIVTVVLGLVICALYFGLKND 419
QY 412 TLKGAQDRVGLLYQLVGATPYTGMLNANVLFPMRAVSDQESQDGLYHKWQMLLAYVL- 470
DB 420 ST--GIQNRAGVLFLLTNQCFSS--VSAVELFVVEKKLFIHEYISGYRVSSYFLGKLLS 476
QY 471 HVLPSVIATVIFSSVCYWTILGLYPEVARFGYFSAALLAPHLIGEFTLVLLGIVQNPNI 530
DB 477 DLLPMTLPSIIFTCTIVYFVLMGLKPKADAFVMMFTLM---WVAYSASSMALAIAAGQSV 533
QY 531 VNSIVALLSIS--GLLTGSGFIRNIQEMPIPKILGYFTFKYCCCEILVNVFVGLNFTC 588
DB 534 VSVATLLMTICFVFMWIFSGLLVNLTIASWLSWLYQFSIPRYGFTALQHNEFLGQNF-C 592
QY 589 GGSNTSMNLNHPMCAITQGVQPIEK 612
DB 593 PGLNATGNPCNYATCTGEEYLVK 616

```

```

RESULT 11
US-10-120-687-61
; Sequence 61, Application US/10120687
; Publication No. US20030082155A1
; GENERAL INFORMATION:
; APPLICANT: Massachusetts General Hospital
; TITLE OF INVENTION: Stem Cells of the Islets of Langerhans and Their Use in Treating
; FILE REFERENCE: 3284/1235B
; CURRENT APPLICATION NUMBER: US/10/120.687
; CURRENT FILING DATE: 2002-04-11
; PRIOR APPLICATION NUMBER: US60/169082
; PRIOR FILING DATE: 1999-12-06
; PRIOR APPLICATION NUMBER: US 09/963,875
; PRIOR FILING DATE: 2001-09-25
; PRIOR APPLICATION NUMBER: US 60/215,109
; PRIOR FILING DATE: 2000-06-28
; PRIOR APPLICATION NUMBER: US 60/238880
; PRIOR FILING DATE: 2000-10-06
; PRIOR APPLICATION NUMBER: US 09/731261
; PRIOR FILING DATE: 2000-12-06
; NUMBER OF SEQ ID NOS: 61
; SOFTWARE: Patent in version 3.1
; SEQ ID NO 61
; LENGTH: 655
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-120-687-61

```

```

Query Match 20.5%; Score 691.5; DB 14; Length 655;
Best Local Similarity 29.0%; Pred. No. 5e-58;
Matches 181; Conservative 141; Mismatches 247; Indels 55; Gaps 16;

QY 25 LEQGSVTGTEARHS-----LGVLHVSYSVSNRVGPMWNIKSCQKQKWDQILKDV 73
DB 12 VSQNGTNGFPATASNDLKAFTEGAVLSFHNICRYVKLSG---FLPCRKPEVEKILSNI 67
QY 74 SLVIESQIMCILSGSGSKTLLDAISGRLLRTGTLEGEVFNVCGLRRDQFCFSYV 133

```

Db 68 NGIMKPG-LNALIGTGGKSSLLDLAARKDPG-LSGDVLINGAP-RPANFKCNSGV 124
 QY 134 LOSDFLSLTVRETLRYTAMALCRSSADF-YNKKVEAVMTLSLHVADQMISYNG 192
 Db 125 VODDVMTGLTVRENLQFSAALRLATTWNEKNERINRVIOELGDKVADSKVGTQPIR 184
 QY 193 GISSGERRVSTAAQLQDPKVMMLDEPTTGLDCMTANOIVLLAEALARRDRIVITIQ 252
 Db 185 GVSGERKRTSIMGELITDPSILFDEPTTGLDSTANAVLLKRMKSQGRITIFSIHQ 244
 QY 253 PRSELFOHFDKAILTYGELVFCGPEEMLGFENNGYPCPEHNSPDPFMDLTSVDTQ- 311
 Db 245 PRYSIFKLFDSUTLLASGRMLPHGPAQALGFESAGYHCEAYNPNADFFLDIINGDSTA 304
 QY 312 -SREIEITYKRVQMLECAFRESDIYHKI-----LENIERARYLKT 351
 Db 305 VALNRE-EDFKATEIIEPSKQDKPLIEKLAIEYVNSFYKETAELHQLSGEKKKITV 363
 QY 352 LPMVPFKTDPGMEGKLVLLRRVTRNLMENKQAVIMRLVQNLIMGLFLIFYLLRVQNN 411
 Db 364 FKEISYTT-----SFCQLRWVSKRSFKNLLGNPQASIAQIIVTVVLGIVGAIYFGLKND 419
 QY 412 TLKGAVQDRVGLLYQVLGATPYTGMNANVLPMLRAVSDQESODGLYHKMQMLLAYVL- 470
 Db 420 ST--GIQNRAGVLFELTTNOCFSS-VSAVELFVVEKKLFIHEYISGYRVSSYFLGKLS 476
 QY 471 HVLPSVIATVPSSVCVWTGLGYPEVARFGVFSALLAPHLIGEBFLTLVLLGIVQNPNI 530
 Db 477 DLLPMRLPSIIFTCTIVFVMLGKPKADAFVYMFMTLM---WVAYSASSMALAIAAGQSV 533
 QY 531 VNSIVALLSIS--GLLIGSGFRNIQEMPIPLKILGYFTFOKYCCEILVWNEFYGLNFTC 588
 Db 534 VSVATLLMTICFVFMIFSGLLVNLTTIASWLSWLOYSIPRYGFTALQHNEFLGQNF-C 592
 QY 589 GGSNTSMLNHPMCAITQGVQFIEK 612
 Db 593 PGLNATGNPCNYATCTGEEYLVK 616

RESULT 12

US-10-405-806-2
 ; Sequence 2, Application US/10405806
 ; Publication NO. US20030232362A1
 ; GENERAL INFORMATION:
 ; APPLICANT: KOMATANI, HIDEVA
 ; APPLICANT: HARA, YOSHIKAZU
 ; APPLICANT: KOTANI, HIDEHITO
 ; APPLICANT: NAKAGAWA, KINAKO
 ; TITLE OF INVENTION: DRUG RESISTANT GENE AND USE THEREOF
 ; FILE REFERENCE: 234985USOCNT
 ; CURRENT APPLICATION NUMBER: US/10/405,806
 ; PRIOR FILING DATE: 2003-04-03
 ; PRIOR APPLICATION NUMBER: PCT/JP01/08112
 ; PRIOR FILING DATE: 2001-09-18
 ; PRIOR APPLICATION NUMBER: JP2000-303441
 ; PRIOR FILING DATE: 2000-10-03
 ; NUMBER OF SEQ ID NOS: 17
 ; SOFTWARE: Patent in version 3.2
 ; SEQ ID NO 2
 ; LENGTH: 655
 ; TYPE: PRT
 ; ORGANISM: Homo sapiens
 US-10-405-806-2

Query Match 20.5%; Score 691.5; DB 15; Length 655;
 Best Local Similarity 29.0%; Pred. No. 5e-58;
 Matches 181; Conservative 141; Mismatches 247; Indels 55; Gaps 16;
 QY 25 LEQGSVTGTAEARHS-----LGVLHVSYSVSNRVGVPWNKSCQCKWDRQILKDV 73
 Db 12 VSQGNTNGFPATASNDLKAFTEGAVLSFPHNICYRVKLKSG-----FLPCRKPVEKEILSNI 67
 QY 74 SLVIESQIMCILGSSGSKTLLDASGRLLRRTGTLEGEVFNVGCELRRDQFCFSV 133

Db 68 NGIMKPG-LNALIGTGGKSSLLDLAARKDPG-LSGDVLINGAP-RPANFKCNSGV 124
 QY 134 LOSDFLSLTVRETLRYTAMALCRSSADF-YNKKVEAVMTLSLHVADQMISYNG 192
 Db 125 VODDVMTGLTVRENLQFSAALRLATTWNEKNERINRVIOELGDKVADSKVGTQPIR 184
 QY 193 GISSGERRVSTAAQLQDPKVMMLDEPTTGLDCMTANOIVLLAEALARRDRIVITIQ 252
 Db 185 GVSGERKRTSIMGELITDPSILFDEPTTGLDSTANAVLLKRMKSQGRITIFSIHQ 244
 QY 253 PRSELFOHFDKAILTYGELVFCGPEEMLGFENNGYPCPEHNSPDPFMDLTSVDTQ- 311
 Db 245 PRYSIFKLFDSUTLLASGRMLPHGPAQALGFESAGYHCEAYNPNADFFLDIINGDSTA 304
 QY 312 -SREIEITYKRVQMLECAFRESDIYHKI-----LENIERARYLKT 351
 Db 305 VALNRE-EDFKATEIIEPSKQDKPLIEKLAIEYVNSFYKETAELHQLSGEKKKITV 363
 QY 352 LPMVPFKTDPGMEGKLVLLRRVTRNLMENKQAVIMRLVQNLIMGLFLIFYLLRVQNN 411
 Db 364 FKEISYTT-----SFCQLRWVSKRSFKNLLGNPQASIAQIIVTVVLGIVGAIYFGLKND 419
 QY 412 TLKGAVQDRVGLLYQVLGATPYTGMNANVLPMLRAVSDQESODGLYHKMQMLLAYVL- 470
 Db 420 ST--GIQNRAGVLFELTTNOCFSS-VSAVELFVVEKKLFIHEYISGYRVSSYFLGKLS 476
 QY 471 HVLPSVIATVPSSVCVWTGLGYPEVARFGVFSALLAPHLIGEBFLTLVLLGIVQNPNI 530
 Db 477 DLLPMRLPSIIFTCTIVFVMLGKPKADAFVYMFMTLM---WVAYSASSMALAIAAGQSV 533
 QY 531 VNSIVALLSIS--GLLIGSGFRNIQEMPIPLKILGYFTFOKYCCEILVWNEFYGLNFTC 588
 Db 534 VSVATLLMTICFVFMIFSGLLVNLTTIASWLSWLOYSIPRYGFTALQHNEFLGQNF-C 592
 QY 589 GGSNTSMLNHPMCAITQGVQFIEK 612
 Db 593 PGLNATGNPCNYATCTGEEYLVK 616

RESULT 13

US-09-866-866A-10
 ; Sequence 10, Application US/09866866A
 ; Patent No. US2002010224A1
 ; GENERAL INFORMATION:
 ; APPLICANT: Sorrentino, Brian
 ; APPLICANT: Schuetz, John
 ; TITLE OF INVENTION: A Method of Identifying and/or Isolating Stem Cells
 ; FILE REFERENCE: 1340-1-021CIP2
 ; CURRENT APPLICATION NUMBER: US/09/866,866A
 ; CURRENT FILING DATE: 2001-08-30
 ; PRIOR FILING DATE: 2001-08-30
 ; PRIOR APPLICATION NUMBER: 09/584,586
 ; PRIOR FILING DATE: 2000-05-31
 ; PRIOR APPLICATION NUMBER: PCT/US99/11825
 ; PRIOR FILING DATE: 1999-05-27
 ; PRIOR APPLICATION NUMBER: 60/086,988
 ; PRIOR FILING DATE: 1998-05-28
 ; NUMBER OF SEQ ID NOS: 27
 ; SOFTWARE: Patent in version 3.0
 ; SEQ ID NO 10
 ; LENGTH: 655
 ; TYPE: PRT
 ; ORGANISM: Homo sapien
 US-09-866-866A-10

Query Match 20.5%; Score 689.5; DB 9; Length 655;
 Best Local Similarity 29.0%; Pred. No. 7.9e-58;
 Matches 181; Conservative 141; Mismatches 247; Indels 55; Gaps 16;
 QY 25 LEQGSVTGTAEARHS-----LGVLHVSYSVSNRVGVPWNKSCQCKWDRQILKDV 73
 Db 12 VSQGNTNGFPATVSNLDLKAFTEGAVLSFPHNICYRVKLKSG-----FLPCRKPVEKEILSNI 67


```

QY 74 SLYESGOIMCILSSGSGKTTLLDAISGRRLRTGTLEGEVFNVCGLRRDQDQCFYV 133
Db 68 NGIMKPG-LNAILOFTGGKSSLLDLAARKDPG-LSGDVINGAP-RPANFKNSGYV 124
QY 134 LQSDVFLSSLTRETLRYTAMALCRSSADP-YNKKVEAVMTLSLHVADQMIGSYNFG 192
Db 125 VQDDVVMGTLTVRENLOFSAAALRLATTMTNHEKNERINRVIEELGLDKVADSVGTQFIR 184
QY 193 GISSGERRRYSIAAQLLODPKVMMLDEPTTGLDCMTANQIVLLLAELARDRIVITIHQ 252
Db 185 GVSGERKRTSIGMELITDPSILSDPTTGLDSSANAVLLLKXMSKQGRITIFSIHQ 244
QY 253 PRSELFQHFQKIALITYGELVFCGTPEEMLGFNNCGYPCPEHNSPPDFYMDLTSVDTQ- 311
Db 245 PRYSIFKLFDLSLTLLASGRMLFHGPAQAEALGYFESAGYHCEAYNPNADFFLDIINGDSTA 304
QY 312 -SRREIETKRVQWMLCAFKESDIYHKI-----LENIEBARVYLT 351
Db 305 VALNRE-EDFKATEIIEFSKQDKPLIEKLAIEYVNSFFYKETAELHQLSGGKKKITV 363
QY 352 LPMVPFKTDPGPGKGLVLLRRVTRNLMNKQAVIMRLVQNLIMGLFLIFYLRLVQNN 411
Db 364 FKEISYTT----SPCHQLRWVSKSFKNLLGNPQASIAQIIVTWLGLVIGAIYFGLKND 419
QY 412 TLKGAQDVRVLLYQVLCATPYTGMLNANVLFPMRAVSQDOESQDGLYHKWQMLLAYVL- 470
Db 420 ST--GIQNRAGVLPFLTNQCFSS-VSAVELFVVEKKLFIHEYISGYRVSSYFLGKLS 476
QY 471 HVLPSVIATVIFSVCYWTGLYPEVARFGYFSAALLAPHLIGEFLLTLVLLGIVQNPNI 530
Db 477 DLLPMRLPSIIFTCIVYFVGLKPKADAFVMMFTLM--WVAYSASSMALAIAGQSV 533
QY 531 VNSIVALLSIS--GLLIGSGFIRNIQEMPIPKILGTYFTQKCCCELLVNEFYGLNFTC 588
Db 534 VSVATLLMTICFVFMIFSGLLVNLTTIASWLSWLYFSIPRYGFTALQHNFLQGNF-C 592
QY 589 GGSNTSMNLHPMCAITQGVQFIEK 612
Db 593 PGLNATGNPNYATCTGEEYLVK 616

RESULT 14
US-10-090-455-5
; Sequence 5, Application US/10090455
; Publication No. US20030027259A1
; GENERAL INFORMATION:
; APPLICANT: Chen, Hongyun
; APPLICANT: Le Bihan, Stephane
; TITLE OF INVENTION: NOVEL ABCG4 TRANSPORTER AND USES THEREOF
; FILE REFERENCE: 100103.406
; CURRENT APPLICATION NUMBER: US/10/090.455
; PRIOR FILING DATE: 2002-03-01
; NUMBER OF SEQ ID NOS: 17
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 5
; LENGTH: 655
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-090-455-5

Query Match 20.5%; Score 699.5; DB 14; Length 655;
Best Local Similarity 29.0%; Pred. No. 7.9e-58;
Matches 181; Conservative 141; Mismatches 247; Indels 55; Gaps 16;

QY 25 LEQGSVTTGTEARHS-----LGVLHVSYSVNRVGPVWNNIKSCQOKWDRQLIKDV 73
Db 12 VSQNTNGFPATVNDLKAFTAGAVLSPHNICYRVKLKSG----FLPCRKPVEKEILSNI 67
QY 74 SLYESGOIMCILSSGSGKTTLLDAISGRRLRTGTLEGEVFNVCGLRRDQDQCFYV 133
Db 68 NGIMKPG-LNAILOFTGGKSSLLDLAARKDPG-LSGDVINGAP-RPANFKNSGYV 124
QY 134 LQSDVFLSSLTRETLRYTAMALCRSSADP-YNKKVEAVMTLSLHVADQMIGSYNFG 192

```

```

Db 125 VQDDVVMGTLTVRENLOFSAAALRLATTMTNHEKNERINRVIEELGLDKVADSVGTQFIR 184
QY 193 GISSGERRRYSIAAQLLODPKVMMLDEPTTGLDCMTANQIVLLLAELARDRIVITIHQ 252
Db 185 GVSGERKRTSIGMELITDPSILSDPTTGLDSSANAVLLLKXMSKQGRITIFSIHQ 244
QY 253 PRSELFQHFQKIALITYGELVFCGTPEEMLGFNNCGYPCPEHNSPPDFYMDLTSVDTQ- 311
Db 245 PRYSIFKLFDLSLTLLASGRMLFHGPAQAEALGYFESAGYHCEAYNPNADFFLDIINGDSTA 304
QY 312 -SRREIETKRVQWMLCAFKESDIYHKI-----LENIEBARVYLT 351
Db 305 VALNRE-EDFKATEIIEFSKQDKPLIEKLAIEYVNSFFYKETAELHQLSGGKKKITV 363
QY 352 LPMVPFKTDPGPGKGLVLLRRVTRNLMNKQAVIMRLVQNLIMGLFLIFYLRLVQNN 411
Db 364 FKEISYTT----SPCHQLRWVSKSFKNLLGNPQASIAQIIVTWLGLVIGAIYFGLKND 419
QY 412 TLKGAQDVRVLLYQVLCATPYTGMLNANVLFPMRAVSQDOESQDGLYHKWQMLLAYVL- 470
Db 420 ST--GIQNRAGVLPFLTNQCFSS-VSAVELFVVEKKLFIHEYISGYRVSSYFLGKLS 476
QY 471 HVLPSVIATVIFSVCYWTGLYPEVARFGYFSAALLAPHLIGEFLLTLVLLGIVQNPNI 530
Db 477 DLLPMRLPSIIFTCIVYFVGLKPKADAFVMMFTLM--WVAYSASSMALAIAGQSV 533
QY 531 VNSIVALLSIS--GLLIGSGFIRNIQEMPIPKILGTYFTQKCCCELLVNEFYGLNFTC 588
Db 534 VSVATLLMTICFVFMIFSGLLVNLTTIASWLSWLYFSIPRYGFTALQHNFLQGNF-C 592
QY 589 GGSNTSMNLHPMCAITQGVQFIEK 612
Db 593 PGLNATGNPNYATCTGEEYLVK 616

RESULT 15
US-09-989-981A-8
; Sequence 8, Application US/09989981A
; Publication No. US20030049730A1
; GENERAL INFORMATION:
; APPLICANT: Hobbs, Helen H.
; APPLICANT: Shan, Bei
; APPLICANT: Barnes, Robert
; APPLICANT: Tian, Hui
; APPLICANT: Tularik, Inc.
; APPLICANT: Board of Regents, The University of Texas System
; TITLE OF INVENTION: ABCG8 and ABCG8: Compositions and Methods of Use
; FILE REFERENCE: 018781-00732005
; CURRENT APPLICATION NUMBER: US/09/989.981A
; CURRENT FILING DATE: 2002-07-23
; PRIOR APPLICATION NUMBER: US 60/252,235
; PRIOR FILING DATE: 2000-11-20
; PRIOR APPLICATION NUMBER: US 60/253,645
; PRIOR FILING DATE: 2000-11-28
; NUMBER OF SEQ ID NOS: 13
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 8
; LENGTH: 673
; TYPE: PRT
; ORGANISM: Homo sapiens
; FEATURE:
; OTHER INFORMATION: human ABCG8 (hABCG8)
US-09-989-981A-8

Query Match 20.4%; Score 688.5; DB 10; Length 673;
Best Local Similarity 28.1%; Pred. No. 1e-57;
Matches 168; Conservative 125; Mismatches 233; Indels 123; Gaps 16;

QY 37 HSLGLVHVSYSV--SNRVGPW-----WNIKSCQOKWDRQLIKDVSLYESGOIMC 84
Db 45 NTLVREDLNYQVDLASQV-PWPEQLAQFKMPWTPSPSCQNSCELGI-QNLSFKVRSQOMLA 102

```


